

# INTERNATIONAL SEARCH REPORT

Int'l Application No  
PCT/IB2004/002639

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 E21B47/06 E21B47/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category <sup>o</sup>	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 913 398 A (CURTIS DECEASED M REX) 21 October 1975 (1975-10-21) column 2, line 45 – column 6, line 25 -----	1, 19-21, 23-25
A	US 2001/020675 A1 (LEGGETT NIGEL ET AL) 13 September 2001 (2001-09-13) the whole document -----	1, 12, 19, 26, 34
A	US 6 427 125 B1 (GZARA KAIS ET AL) 30 July 2002 (2002-07-30) the whole document -----	1, 12, 19, 26, 34
A	WO 00/46485 A (KLUTH E L E ; VARNHAM M P (GB); CLOWES J R (GB); KUTLIK ROY (GB); SENS) 10 August 2000 (2000-08-10) the whole document ----- -/-	1, 12, 19, 26, 34



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

<sup>o</sup> Special categories of cited documents :

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- "O" document referring to an oral disclosure, use, exhibition or other means
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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

28 October 2004

Date of mailing of the international search report

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Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 676 664 A (ANDERSON ROGER N ET AL) 30 June 1987 (1987-06-30) the whole document	1,12,19, 26,34

**INTERNATIONAL SEARCH REPORT**

 Int'l Application No  
 PCT/IB2004/002639

Patent document cited in search report	Publication date	Patent family member(s)		Publication date	
US 3913398	A	21-10-1975	NONE		
US 2001020675	A1	13-09-2001	US 6281489 B1 US 2002109080 A1 US 2003131990 A1 US 2004065439 A1 AU 730715 B2 AU 4902297 A AU 753252 B2 AU 7273798 A AU 7275398 A CA 2264632 A1 CA 2268104 A1 CA 2288784 A1 CA 2409277 A1 DE 69816743 D1 DE 69816743 T2 EP 1357401 A2 EP 1357403 A2 EP 1357402 A2 EP 1355170 A2 EP 1355166 A2 EP 1355167 A2 EP 1355168 A2 EP 1355169 A2 EP 0910725 A1 GB 2354822 A ,B GB 2354583 A ,B GB 2362462 A ,B GB 2362463 A ,B GB 2364380 A ,B GB 2364381 A ,B GB 2364382 A GB 2364383 A GB 2364384 A GB 2334104 A ,B GB 2339902 A ,B NO 991350 A NO 991667 A NO 995319 A NO 20023857 A NO 20032268 A US 6268911 B1 WO 9815850 A1 WO 9850681 A1 WO 9850680 A2 US 2003205083 A1 US 2004043501 A1 US 6209640 B1 US 6302204 B1 US 6253848 B1	28-08-2001 15-08-2002 17-07-2003 08-04-2004 15-03-2001 05-05-1998 10-10-2002 27-11-1998 27-11-1998 12-11-1998 16-04-1998 12-11-1998 12-11-1998 04-09-2003 03-06-2004 29-10-2003 29-10-2003 29-10-2003 22-10-2003 22-10-2003 22-10-2003 22-10-2003 22-10-2003 28-04-1999 04-04-2001 28-03-2001 21-11-2001 21-11-2001 23-01-2002 23-01-2002 23-01-2002 23-01-2002 23-01-2002 23-01-2002 23-01-2002 11-08-1999 09-02-2000 19-03-1999 27-05-1999 20-12-1999 19-03-1999 19-03-1999 31-07-2001 16-04-1998 12-11-1998 12-11-1998 06-11-2003 04-03-2004 03-04-2001 16-10-2001 03-07-2001	09-05-2002 03-05-2001 07-08-2001 29-03-2001 04-04-2001 04-04-2001
US 6427125	B1	30-07-2002	AU 747053 B2 AU 5793900 A BR 0004529 A CA 2321486 A1 CN 1289890 A GB 2354783 A ,B	09-05-2002 03-05-2001 07-08-2001 29-03-2001 04-04-2001 04-04-2001	

## INTERNATIONAL SEARCH REPORT

In  
PCT/IB2004/002639

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 6427125	B1	ID NO	27328 A 20004875 A	29-03-2001 30-03-2001
WO 0046485	A	10-08-2000	AU CA EP NO WO US	2867400 A 2326900 A1 1070196 A1 20005007 A 0046485 A2 6766703 B1
US 4676664	A	30-06-1987	AU AU CA DK EP FI JP NO WO	572544 B2 3211284 A 1219078 A1 120285 A 0155274 A1 851047 A 60501875 T 851042 A 8500635 A1